

## THE MISSOURI RHEXIAS.

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THE large bright-colored flowers of the Meadow Beauties must be very attractive objects in the sandy swamps of the Eastern and Southeastern States, but in Missouri these plants are so rare that but few collectors have ever seen them growing, and the specimens preserved in the herbarium are very few. Having received from E. J. Palmer some fine specimens of a species of *Rhexia*, collected at Alba, Missouri, in 1909, I was more than commonly interested in determining the species to which these specimens belonged, as I had not seen any plants from so far North as this locality.

I was at first strongly inclined to regard these specimens as belonging to an undescribed species, but after a short study of the plants, I referred them to *Rhexia mariana* L., a species that had been collected several times in Missouri.

However, feeling some doubt as to my disposition of these specimens, I took up the study of the species of *Rhexia* that had been collected in Missouri, and through the kindness of Prof. Trelease was enabled to examine all of the Missouri material of this genus, as well as some specimens from other States, preserved in the Herbarium of the Missouri Botanical Garden.

A careful comparison of this material satisfied me that the plants collected by Mr. Palmer belong to an undescribed species, and a visit to the locality where the plants were collected, on July 24, 1910, further convinced me of their distinctness from any described species.

The locality where this new species of *Rhexia* occurs, is some four miles north of Alba, Missouri, in Jasper County, on a high prairie, about 1100 feet elevation, along little rocky draws that lead to the lower prairie, a place one would be least likely to think of as the habitat of any species of *Rhexia*, a genus which, as is well known, is commonly found in sandy swamps and bottoms.

## SYNOPSIS OF THE MISSOURI SPECIES OF RHEXIA.

Stem quadrangular, wing-angled, with slightly concave sides, low, simple or somewhat branched; leaves sessile, narrowly to broadly elliptical, 2-6 cm. long, 10-25 mm. broad, pointed at both ends, broadest at about the



- middle, aristulate-tipped, 3-nerved; calyx-tube distinctly and usually rather copiously bristly-hispid . . . . . 1. *R. latifolia*, n. sp.  
 Stem cylindric, slender, low, hirsute-pubescent; leaves short-petioled, oblong or linear-oblong, acute at the apex, narrowed at the base, 2–4 cm. long, 4–10 mm. broad, 3-nerved; calyx-tube essentially smooth or with a few scattered bristles . . . . . 2. *R. mariana*.  
 Stem square, stout, tall, slightly pubescent or nearly glabrous; leaves nearly sessile, ovate or ovate-oval, acutish, 2–5 cm. long, 2–4 cm. broad, 3–5-nerved, veiny . . . . . 3. *R. virginica*.

1. ***Rhexia latifolia*** n. sp., erecta simplex vel leviter ramosa 4–6 dm. alta; caule alato-quadrangulati cum pilis rectis patentibus 1–3 mm. longis tecto, faciebus leviter concavis; foliis sessilibus vel subsessilibus anguste vel late ellipticis 2–6 cm. longis 10–25 mm. latis apice basique acutis in media parte latissimis, apice aristatis, supra lutei-viridibus cum pilis rectis sparsis 1–1.5 mm. longis et inter se 1–2 mm. distantibus praecipue inter nervias obsitis, subtus pallidioribus valide 3-nerviis cum pilis praecipue innerviis munitis, margine obscure serrulatis, dentibus minimis; inflorescentia puberula foliosa saepe ramosissima, ramulis gracilibus adscendentibus vel erectis; floribus terminalibus vel in axillis superioribus purpureo-roseis 20–25 mm. diametro breviter (1–2 mm. longae) bracteatis, bracteis lineari-lanceolatis; tubo capsulae globoso ca. 4 mm. longo pilis longiusculis hispido supra in collum subaequilongum vix constricto; dentibus calycis lanceolatis saepissime a fructu deciduis; seminibus stramineis rugosissimis.—Plants 4–6 dm. tall, erect, simple or somewhat branched. Stems quadrangular, wing-angled, with slightly concave sides pubescent with straight spreading hairs 1–3 mm. long. Leaves sessile or nearly so, narrowly to broadly elliptical, 2–6 cm. long, 10–25 mm. broad, pointed at each end, broadest at about the middle, aristulate-tipped, upper surface yellowish-green, with straight scattered hairs 1–1.5 mm. long, and 1–2 mm. apart, mostly between the nerves, the lower surface paler, the hairs mostly along the nerves, strongly 3-nerved, faintly serrulate with long, shallow, ciliate teeth. Inflorescence puberulent, leafy, often much-branched, with slender ascending or erect branchlets. Flowers terminal and in the upper axils, deep purplish-pink, 20–25 mm. broad, on short (1–2 mm. long) pedicels, subtended by linear-lanceolate bracts. Body of capsule globose, about 4 mm. high, with constricted neck of about equal length. Calyx-teeth lanceolate, mostly deciduous from the fruit. Seeds straw-colored, very rugose. High prairies and barrens, Southern Missouri, Arkansas and Oklahoma. Summer and Autumn.

*Specimens examined:* *Missouri:* Alba, Bush 6070, July 24, 1910, type; Palmer, July 24, 1910, co-type; Palmer 2432, July 7, 1909; Waco, Palmer, 923, September 21, 1906; 949, September 21, 1906; 1100, August 11, 1907; 1256, October 4, 1908. *Arkansas:* Hot Springs, Trelease, September 3, 1897. *Oklahoma:* Sapulpa, Paul J. White 101, August 11, 1900.



2. *RHEXIA MARIANA* L. Sp. Pl. 346, 1753. A species of sandy swamps, New Jersey to Florida, mostly along the coast, West to Louisiana and Texas, North along the Mississippi river to Southern Missouri, Illinois and Kentucky.

*Specimens examined: Missouri:* Butler County, *Eggert*, July 27, 1892; *Campbell, Bush* 145, July 20, 1893; Pleasant Grove, *Mackenzie* 322, July 17, 1897; *Bush*, 274, August 13, 1899; Neelyville, *Russell*, July 4, 1899.

3. *RHEXIA VIRGINICA* L. Sp. Pl. 346, 1753. A species of low meadows and sandy swamps, ranging from Maine to New Jersey and Florida, mostly near the coast, West to Louisiana, and North along the Mississippi river to Southeastern Missouri and Southern Illinois.

*Specimens examined: Missouri:* Malden, *Bush* 146, July 22, 1895; Pilot Knob, *Glatfelter*, August 20, 1895.

COURTNEY, MISSOURI.

## LYCOPODIUM FLABELLIFORME.

W. H. BLANCHARD.

***Lycopodium flabelliforme*** (Fernald), n. sp. *L. complanatum*, var. *flabelliforme* Fernald, RHODORA, iii. 280 (1901); Gray's Man. ed. 7, 57 (1908). Caule repenti superficiali, ramis 2-3 dm. altis rigidule erectis mense Octobri tertio vel quarto anno fructiferis, hornotinis usque ad 3 cm. attingentibus profunde bipartitis, partibus 5-7-furcatis, lobis dorso planis vel convexis subtus concavis 2-3 mm. latis rarer secundum anno procrecentibus; foliis minutis adpressis, pedicellis robustis saepe furcatis, pedunculis ca. 7 cm. longis robustis viridibus ab apice erecto lato vel primae vel hinc inde ulterioris furcationis et quam ea uno anno tardius evolutis.

Running stem nearly superficial; upright parts 2-3 dm. high, stiffly erect, maturing fruit in October after third or fourth year; upright stem extension 3 cm. yearly, bearing two branches 5- to 7-forked, flat or convex above, concave below, 2 to 3 mm. broad, branchlets rarely extending the second year; leaves minute, adpressed; strobiles 4 (or rarely 5)  $2\frac{1}{2}$  to 4 cm. long, often pointed, on stout, twice forked pedicels; peduncles 7 cm. long, stout, green, from broad erect end of first or sometimes more remote forking of branches, and growing in year following the production of branch.

I propose to show that there is abundant reason for according specific rank to this plant and incidentally to show that it is unique